NO. 73020-2

SUPREME COURT OF THE STATE OF WASHINGTON

WASHINGTON EMPLOYERS CONCERNED ABOUT REGULATING ERGONOMICS, ET AL.,

Appellant,

v.

WASHINGTON DEPARTMENT OF LABOR AND INDUSTRIES,

Respondent,

AMERICAN FEDERATION OF LABOR AND CONGRESS OF INDUSTRIAL ORGANIZATIONS AND WASHINGTON STATE LABOR COUNCIL, AFL-CIO

Intervenors.

BRIEF OF AMICI CURIAE LAW PROFESSORS CRAIG H. ALLEN, WILLIAM R. ANDERSEN, SIDNEY SHAPIRO, DAVID C. VLADECK, WILLIAM FUNK AND THOMAS O. MCGARITY

CRAIG H. ALLEN, WSBA #23985
WILLIAM R. ANDERSEN
University of Washington
School of Law
Condon Hall
1100 N.E. Campus Parkway
Seattle, Washington 98105
(206) 616-8302
(206) 543-9385

DAVID C. VLADECK
Georgetown University of Law Center
600 New Jersey Avenue, NW
Washington, D.C. 20001
(202) 662-9540

Counsel for Amici

I. INTERESTS OF AMICI AND SUMMARY OF ARGUMENT

This brief is filed on behalf of a number of law professors who teach, write and practice in the fields of administrative and health and safety law. Several have special expertise in cost benefit analysis.[1] Amici believe that the Ergonomics Rule promulgated by the Department of Labor and Industries, WAC 296-62-051 *et seq.*, represents a sensible, measured, and highly cost effective approach to reducing the most pervasive cause of serious injuries in the workplace today. Amici file this brief for two reasons.

1. This case raises important administrative law questions. Appellant has pressed a number of procedural challenges under the Regulatory Reform Act of 1995, RCW 34.05.328 (RRA), and this case presents this Court with its first opportunity to determine how the procedures mandated by the Reform Act apply to rule-makings conducted under agency organic statutes, such as the Washington Industrial Safety and Health Act, RCW 49.17.050 (WISHA). Amici address two of appellant's procedural points.

First, amici show that the standard of review to be applied here is the arbitrary and capricious standard governing judicial review of agency action under RWC 34.05.570(2)(c). Appellants argument that this Court should cobble together a reasonable person standard of review from language in RWC 34.05.328 – a provision requiring documentation to be

[1] Biographical material on each professor appears in an addendum to this brief.

placed in the record when agencies promulgate significant legislative rules – strains the text of the statute beyond the breaking point.

Second, amici show that the Department properly harmonized the dual mandates of the RRA and the WISHA in making its cost benefit determination. Appellant's argument that the Department was required to make its cost benefit determination before even *proposing* a rule is at odds with the statutory language, which requires the determination to be made before *adopting* a rule. It also amounts to little more than the contention that the RRA is a straight-jacket, enacted not to ensure consideration of economic factors in rule-making, but to paralyze agencies by requiring them to make no fewer than six formal and complex determinations before even proposing a rule.

2. This case has national importance because Washington is the only state in the nation that requires a cost benefit determination to accompany significant legislative rules. Cost benefit analysis remains a controversial rule-making tool because many values integral to health and safety regulation (such as the value of IQ points lost to children exposed to lead, or, more to the point here, the value of avoiding chronic and debilitating back pain, carpal tunnel syndrome, or tendinitis) defy precise monetization. Not only that, but the components of a cost benefit analysis – assessments of how many people will be injured, how serious their injuries will be, how expensive will it be to impose protections, and so forth – also resist precise determination. For this reason, the surgical precision appellant claims is required in making a cost benefit

determination is nothing other than an unattainable chimera. It is also not required by law. Reasonableness, not perfection, is all that is required by the RRA.

Federal regulatory agencies, including the Occupational Safety and Health Administration (OSHA), have analyzed costs and benefits in setting major rules for some time. Amici believe that the experience of those agencies in addressing cost benefit concerns, and the experience of reviewing courts in evaluating the soundness of agency cost benefit assessments, may be especially relevant to this Court's review of the Ergonomics Rule. *See Rios v. Dept. of Labor and Industries*, 145 Wn.2d 483, 497, 39 P.3d 961 (2002).

Finally, amici wish to emphasize that the cost benefit determination accompanying the Ergonomics Rule here is atypical in one key respect. It is based on injury data that is unusually robust and that provides an especially solid foundation for making cost benefit determinations. In most cases, agencies are forced to estimate risk by extrapolating the risks seen in small groups to workers generally or to the population at large. Not so here. Washington has a unique advantage in regulating ergonomic risks because it is the State's sole workers compensation insurer, and therefore has a comprehensive database of all compensable workplace injuries in the state. Drawing on this database, the Department determined, at levels of precision well beyond those that can be expected in future proceedings, the numbers of work-related musculoskeletal disorders (WMSDs); the indemnity and medical costs

associated with such injuries; the number of workdays missed as a result of such injuries; and the extent to which the Department's regulatory measures will reduce the injuries and costs associated with those injuries. As we explain below, the richness of the data available to the Department in this case contributes to the soundness of its cost benefit determination. But regulatory agencies rarely have available such detailed and reliable information. Thus, the cost benefit analysis here should not be held up as the template for subsequent analyses, but instead is about as detailed and rigorous as any cost benefit analysis could be.

II. APPELLANT'S PROCEDURAL OBJECTIONS ARE WITHOUT MERIT.

Appellant makes two procedural arguments. Neither has merit.

1. Appellant first argues that in reviewing its challenges to the ergonomics rule, this Court should disregard the arbitrary and capricious test that specifically governs judicial review of agency rulemaking and instead apply a "reasonable person" test, based on the "significant legislative rules" language of the RRA. *See* RCW 34.05.328(2). Appellant's argument is unsupported by the text of the RRA and by the history surrounding its enactment in 1995.

This issue frames an important question about the relationship between administrative agencies and reviewing courts – a relationship which is important in capturing the benefit of agency experience within a general Rule of Law framework. The difficulty in this case arises from the fact that the APA appears to contain conflicting standards of proof. One

section (328) says the agency must place in the rulemaking file "documentation . . . sufficient . . . to persuade a reasonable person that the determinations are justified." The other section (570) says a rule must be accepted by a reviewing court if it is not arbitrary or capricious.

As a matter of history, the arbitrary/capricious test laid down in section 570 was hard won. Responding to various forces in the drafting stage, the 1989 APA did not adopt the arbitrary/capricious test, but instead used a compromise variation of the formula. After several years of uncertainty, this Court suggested the formula was very like the arbitrary/capricious test. *Neah Bay Chamber of Commerce v. Dept. of Fisheries*, 119 Wn. 2d 464 (1992). Soon thereafter, the legislature conformed the statute to the Court's interpretation, explicitly adopting the arbitrary/capricious test for judicial review of agency rules. *See,* Andersen, *The 1988 Washington Administrative Procedure Act – An Introduction*, 64 Wash. L. Rev. 781 (1989).

While the difference between the two tests is subtle, it is real, as witness the heated legislative battles and noting appellant's earnest preference for one test rather than the other. Within a disciplined scope of review analysis there is a difference between a conclusion that is arbitrary and one that is merely unreasonable. The phrase arbitrary or capricious suggests not just an error of reason but its total absence – or at least a decision ascertainably further from a standard of reasonableness than a decision that is merely unreasonable. In defining the arbitrary/capricious test, the Court uses language it would not use defining a test of

reasonableness. This Court has defined arbitrary or capricious agency action as action that "is willful and unreasoning and taken without regard to the attending facts or circumstance. . . .Where there is room for two opinions, an action taken after due consideration is not arbitrary and capricious even though a reviewing Court may believe it to be erroneous." *Washington Indep. Tel. Ass'n v. Washington Utilities and Transp. Comm'n*, Docket No. 72330-3 (3/06/2003). Because of this difference between the two standards, a Court presumably would be freer to set aside agency action under a reasonableness test than it would be if it were required to accept the agency's conclusion unless that conclusion was arbitrary.

After more than a decade of debate and litigation, the various perspectives have come together in a stable and sensible test, one which is mirrored broadly in most state and federal systems for judicial review of rule-making. Appellant seeks to reopen this settlement with the improbable argument that the 1995 Legislature, while adopting the arbitrary/capricious test in the judicial review section of the APA, as indicated above, intended at the same time to limit, replace or qualify that very test by an amendment contained in a section having nothing to do with judicial review. Appellant argues that by implication RCW 34.05. 328, part of the "significant legislative rules" requirements added to the APA in 1995, modifies the arbitrary/capricious test. The short and sufficient refutation of this argument is that the APA forbids it. Section 34.05.020 unambiguously states that "No subsequent legislation shall be

held to supersede or modify the provisions of this chapter . . . except to the extent that such legislation shall do so expressly." Amendment of the APA cannot be accomplished by implication.

Appellant argues that because of a reference in the opening section of section 570 to "other statutes" overriding the APA, section 020's requirement of express statement is not controlling. But 570 merely recognizes that later statutes can override; the mechanism for making that happen is contained in section 020. Appellant's reading of the beginning language of 570 would render section 020 meaningless. In fact, section 020 is an important effort by the legislature to make clear which statutes govern when a statute is passed which differs from the APA. Section 020 leaves future legislatures free to override the APA or not as they choose. But 020 requires that they be clear about their choice, so agencies and courts will not have to wonder in uncertainty. This is thoughtful legislative drafting. It should not be rendered meaningless as appellant's interpretation would do.

The two standards we are considering do not really conflict if the institutional design is seen clearly. The standards are directed to two entirely different actors and describe two quite important but quite different functions. Part III of the Act (Rulemaking Procedures) contains section 328 and instructs agencies on how to conduct rule-making. Section 328, for example, contains many subsidiary determinations which must support the rule adopted. For example, the agency must identify the goals of the rule, determine that the rule is necessary, that its benefits

exceed its costs, that there are no less burdensome ways of accomplishing the rule's objectives, that no one subject to the rule is required to violate another law, etc. It is with respect to these requirements that the agency is instructed to place evidence in the rule-making file that would persuade a reasonable person the determinations are justified. Section 328's commands are directed only to the *agency*. It is the agency that is to base its determination on evidence that would persuade a reasonable person.

By contrast, section 570 is addressed to the *courts*. When the judicial power is invoked to review agency rulemaking, the role of the courts is spelled out in Part V (Judicial Review and Enforcement)—that part of the act which deals with judicial review and which includes section 570. As indicated, that section requires the Court to accept the agency determination unless it is arbitrary or capricious.

In the administrative agency field, the APA expressly notes the different role of agency and court when it instructs "the court shall limit its function to assuring that the agency has exercised its discretion in accordance with the law, and shall not itself undertake to exercise the discretion that the legislature has placed in the agency." RCW 34.05.574(2).

If the relationship between the courts and agencies is to function as intended, these different roles need to be kept distinct. They provide for rigorous judicial review of legal matters, while respecting the inherently discretionary judgment of the agency on technical and policy questions. It

seems especially important that agency discretion receive appropriate respect in a case such as this, in which consequential policy choices must be made on the basis of complex medical, financial, technical and statistical considerations, and in which the legislature has laid down only the kind of highly general criteria typical of cost/benefit requirements.

2. The industry also contends that the Department was required to determine whether the rule was justified on cost benefit grounds "sufficiently before the rule's adoption for the public to comment." (Br. 18). Not surprisingly, in making this argument the industry neither cites nor quotes the actual language of RCW 34.05.238(1). In fact, the language of the Act triply refutes the industry's argument.

First, contrary to the industry's repeated suggestion, RCW 34.05.238 nowhere requires the production of a formal separate document entitled "cost benefit analysis," let alone that the Department produce such a document before proposing a rule. All the statute requires is that the agency make a "determination" on costs and benefits "[b]efore adopting a rule." To put the industry's argument in context, it must be remembered that the cost benefit determination is just one of *six* distinct "determin[ations]" an agency must make when adopting a significant legislative rule. RCW 34.05.328(1). Presumably, the industry's timing argument applies with equal force to each of these six determinations. To require an agency to make each of these determinations in a formal way

prior to even publishing a proposed rule would paralyze agencies with paperwork and delay for months or years the development of needed rules.[2]

Second, the Act itself refutes the industry's argument by directly answering the question of timing. The Act says that an agency's determination that benefits exceed costs shall be made "[b]efore *adopting* a rule," not "before *proposing* a rule." For the industry's argument to have any force, this Court would have to rewrite the language of 34.05.238(1) to substitute the word "proposing" for "adopting." This Court should be wary of undertaking radical surgery on an unambiguous statute.

Third, there is another textual reason why the appellant's argument fails. The RRA was an amendment to the APA, which contains a provision explicitly identifying everything that an agency must publish in the state register along with a proposed rule. RCW 34.05.320 provides that "[a]t least twenty days before the rule-making hearing at which the agency receives public comment regarding adoption of a rule, the agency shall cause notice of the hearing to be published in the state register," along with twelve separately identified types of information, including "a

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[2] By way of comparison, Executive Order No. 12,866, entitled Regulatory Planning and Review, 58 Fed. Reg. 51735 (Oct. 4, 1993), governing federal agency regulatory review, requires agencies to prepare a number of complex, analytical documents, including an assessments of costs and benefits, prior to even publishing a proposed rule. *See id.*, §6. This process often adds months or years to the rule-making process, and for that reason has been criticized as slowing the development of needed health and safety regulation. *See, e.g.,* McGarity, *Some Thoughts on Deossifying the Rulemaking Process,* Duke L.J. 1385 (1992).

description of the rule's purpose," and "a short explanation of the rule, its purpose, anticipated effects." Tellingly, there is no requirement that agencies publish the determinations required by 34.05.238(1), including a cost benefit determination, when they give notice of a proposed rule. Had the Legislature wanted to dictate the procedures appellant claims are required, it could have done so explicitly in 1995 when it enacted the RRA, but did not. This Court should not disturb the Legislature's judgment on this matter.[3]

Finally, it bears noting that the industry's public participation arguments are especially empty in this case. This is not a case in which the regulated public was left guessing at what the Department was considering in terms of its rule; nor is there any room to claim in this proceeding that the final rule is not the logical outgrowth of the proposal. Put simply, there is no basis here to claim that the Department failed to comply scrupulously with the requirements of RCW 34.05.320 and 325. Industry was on notice all along of the regulatory approach the Department was considering, and while it may be that not every last piece of paper was submitted to the rule-making file prior to the public comment period, there can be no plausible argument that Washington law requires the Department to do so, or that the industry was denied an ample opportunity to make its case. *See, e.g., United Steelworkers v. Marshall*, 647 F.2d 1189, 1274 (D.C. Cir. 1980) (rejecting similar industry notice

[3] The Legislature's intent here is further driven home by the fact that it *did* amend RCW 34.05.320 in 1995, but *only* to add section (1)(l), which requires an agency to state in its proposed rule "whether RCW 34.05.328 applies to the rule adoption."

argument). Accordingly, the Court should reject the industry's claim that agencies are required to prepare and put in the file any of the determinations required by RCW 34.05.328(1) prior to the publication of a proposed rule.

III. APPELLANT'S ATTACKS ON THE COST BENEFIT DETERMINATION ARE UNWARRANTED.

Before we address some of appellant's specific attacks on the Department's cost benefit determination, one preliminary, overarching comment is in order. Viewed in their entirety, appellant's complaints about the Department's cost benefit determination distill down to a common point: The determination was conducted on the basis of data that were not precise, and, as a result, the analysis itself is imprecise. According to the appellant, imperfections riddled all of the relevant data from the estimates of the number of WMSDs likely to occur annually, to the likely success of the regulatory measures the Department has imposed, to the economic burden of reducing WMSDs. And to some extent, albeit far less than appellant claims, appellant is right: This cost benefit analysis, like every other cost benefit analysis in the health and safety arena, is not perfect because the data that goes into the analysis is not perfect, this one is far better than most.

But the conclusion that appellant draws from this observation, namely that the Rule must fall, is 180-degrees backward. This is not a

product liability case involving heightened standards of proof. Regulatory law does not work that way. The purpose of regulatory law is not to assign blame or make individual parties pay judgments. Rather, it is to prevent injuries and deaths by imposing reasonable and cost effective measures on the basis of predictive and often untestable judgments on complex scientific and technical matters. *See generally Public Citizen Health Research Group v. Chao*, 314 F.3d 143, 155-56 (3d Cir. 2002) (rejecting OSHA's argument that scientific uncertainty justifies delay in promulgating needed health standard); *Ethyl Corp. v. EPA,* 541 F.2d 1, 28 (D.C. Cir. 1976) (recognizing EPA's "expertise to draw conclusions from suspected, but not completely substantiated, relationships between facts, from trends among facts, from theoretical projections from imperfect data"). Indeed, prevention is the explicit purpose of the WISHA. RCW 49.17.010. The Washington Legislature has decided that cost benefit analysis can play a constructive role in assuring that the costs of preventive regulatory measures imposed are proportionate to the benefits conferred. But no one experienced in developing regulatory policy believes that cost benefit analysis can reach the level of perfection claimed necessary by appellant.[4]

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[4] The view that cost benefit analysis is a highly imprecise tool is widely shared, even by its most ardent proponents. *See* Sunstein, *Health-Health Tradeoffs*, 63 U. Chi. L. Rev. 1533, 1535 (1996); Sunstein, *Legislative Foreword: Congress, Constitutional*

Certainly the Legislature did not envision that level of perfection. Indeed, the Legislature recognized the indeterminancy of cost benefit analysis. RCW 34.05.328(1)(c) says, in pertinent part, that "[b]efore adopting a rule . . . an agency shall . . . [d]etermine that the *probable* benefits of the rule are greater than its *probable* costs, taking into account both the *qualitative* and quantitative benefits and costs and the specific directives of the statute being implemented." (Emphasis added). Not only does the provision twice use the word "probable" to signal the Legislature's recognition that agencies are engaging in predictive judgments when they promulgate rules and hence precision is beyond their reach, but by referring to "qualitative" factors the Legislature also recognized that some costs and benefits are by their nature non-quantifiable but must nonetheless be considered.[5]

Moments, and the Cost-Benefit State, 48 Stan. L. Rev. 247, 249 (1996); Pildes & Sunstein, *Reinventing the Regulatory State*, 62 U. Chi. L. Rev. 1, 72-76 (1995). And critics of cost benefit analysis underscore that it is too imprecise to be used for decision-making purposes, but may properly play at most a more limited role in regulatory assessment. *See, e.g.* SIDNEY A. SHAPIRO & ROBERT L. GLICKSMAN, RISK REGULATION AT RISK: RESTORING A PRAGMATIC APPROACH 146 (Stanford Univ. Press 2003); THOMAS O. MCGARITY, REINVENTING RATIONALITY: THE ROLE OF REGULATORY ANALYSIS IN THE FEDERAL BUREAUCRACY 164 (Cambridge Univ. Press 1991).

[5] Executive Order 12,866 makes the same point. Section 1 requires agencies to consider "all costs and benefits of available regulatory alternatives," but goes on to caution that costs and benefits "shall be understood to include both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but nevertheless essential to measure."

The Legislature's judgment on this point is unassailable. Cost benefit analysis is not capable of the precision that the appellant demands. In setting health and safety regulations, agencies are regulating on the "frontiers of scientific knowledge." *Public Citizen Health Research Group v. Tyson*, 796 F.2d 1479, 1495 (D.C. Cir. 1986). Courts "probably cannot expect hard and precise estimates of costs" especially, where, as here, there are a range of technological options available to industry to achieve compliance. *United Steelworkers v. Marshall*, 647 F.2d at 1266. "The mere fact that certain factors in a cost-benefit analysis are generally imprecise or unquantifiable does not render the result inadequate." *Hughes River Watershed Conservancy v. Johnson,* 165 F.3d 283, 290 (4th Cir. 1999).

Nor do agencies have the luxury to wait indefinitely until a scientific consensus emerges. As courts have said time and again, OSHA "cannot let workers suffer while it awaits the Godot of scientific certainty." *Public Citizen Health Research Group v. Chao*, 314 F.3d at 156. Agencies, by necessity, rely on the best scientific evidence available at the time, and WISHA makes that necessity a command. RCW 49.17.050(4). In requiring that the Department regulate on the basis of the "best available evidence" to ensure that "no employee will suffer a material impairment of health" WISHA tracks almost precisely the

language of the OSH Act. *Compare id. with* 29 U.S.C. ' 655(b)(5). In construing virtually identical language, the federal courts have found that "OSHA's mandate necessarily requires it to act, even if information is incomplete, when the best available evidence indicates a serious threat to the health of workers." *AFL-CIO v. Marshall*, 617 F.2d 636, 651 (D.C. Cir. 1980).

Moreover, in the field of health and safety regulation, the notion that the next study will be "definitive" is almost always misguided. *Id.* at 668 n.196 (rejecting industry argument that "OSHA has to wait for a pending study before promulgating a standard. After that study, there would always be another study, and then another, that could be deemed a necessary contribution to the regulation"); *Public Citizen Health Research Group v. Chao*, 314 F.3d at 155-57 (OSHA could not cite shortcomings in epidemiological study to justify regulatory inaction).

Viewed against this backdrop, appellant's objections to the Department's cost benefit determination ring hollow. We now address in greater detail the uncertainties that plague cost benefit analyses generally, not to belittle the process, but to explain why the Legislature was plainly right in saying that agencies should use cost benefit analysis to determine that the "*probable* benefits of the rule are greater than its *probable* costs." There are three major steps in cost benefit analysis: an assessment of the

magnitude and gravity of the risk (often called risk assessment); an assessment of the benefits of the rule (injuries and deaths avoided); and an assessment of the costs of the implementation of the rule. *See* McGarity, *A Cost-Benefit State*, 50 Ad. L. Rev. 7, 12, 15 (1998). Each step involves significant uncertainties about quantification that are resolved through educated reasoning. We discuss each step in turn.[6]

1. Cost benefit analysis in the safety context begins with an assessment of magnitude and gravity of the risk. *See generally,* McGarity, *A Cost-Benefit State*, 50 Ad. L. Rev. 7, 12 (1998). And many of the infirmities of cost-benefit analysis are due to the uncertainties that are inherent in risk assessment. Risk assessment is "the use of the [existing] factual base to define the health effects of exposure of individuals or populations to hazardous materials and situations." National Research Council, et al., RISK ASSESSMENT IN THE FEDERAL GOVERNMENT: MANAGING THE PROCESS, 3 (1983) (hereinafter, NRC, RISK ASSESSMENT).

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[6] Although the federal OSH Act does not prescribe cost-benefit analysis, OSHA has since 1981 been required by a series of Executive Orders to engage in essentially the same cost benefit assessment that the RRA requires of Washington State agencies. *See* Executive Order, E.O.12,866(1)(a). Moreover, in setting safety standards like the Ergonomics Rule at issue here, several courts have required OSHA to engage in actual cost benefit analysis to justify regulations. *See National Grain & Feed Ass'n v. OSHA*, 866 F.2d 717, 733 (5th Cir. 1989); *Int'l Union, UAW v. OSHA*, 938 F.2d 1310, 1315 (D.C. Cir. 1991) (remanding to OSHA for an assessment of costs and benefits); 58 Fed. Reg. 16612, 16622 (March 30, 1993) (OSHA's response to court order); 37 F.3d 665 (D.C. Cir. 1994) (upholding OSHA's response).

Risk assessment begins with the rudimentary principle that risk is a function of probability and consequences. A safety risk normally depends upon the probability that an accident will happen, the probability that protective equipment will fail, and the consequences for humans or other valuable things. Unfortunately, risk assessments require a great deal of information and much of this information is non-existent or difficult to obtain. NRC, RISK ASSESSMENT, at 11. In occupational safety cases, OSHA has relied mainly on injury and death reports it or other agencies have compiled, and epidemiological studies, that is, retrospective studies on the health effects of workers exposed to a particular risk, to assess both the gravity and magnitude of the risk. For agencies like OSHA, these studies constitute the best evidence of risk because they reflect health impacts on real workers, not laboratory animals. *See, e.g., Public Citizen Health Research Group v. Tyson,* 796 F.2d at 1487-92. But they are not perfect. These studies are open to attack because the samples are often small, the reporting of occupational injuries is spotty, *see* Thomas O. McGarity & Sidney A. Shapiro, WORKERS AT RISK: THE FAILED PROMISE OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION 5-6, 214-215 (Praeger Press 1993), and they involve real workers and thus cannot be controlled to ensure that the study subjects are not exposed to other risks. *See, e.g., Public Citizen Health Research Group v. Chao*, 314 F.3d

at 155-57; Elinor P. Schroeder & Sidney A. Shapiro, *Responses To Occupational Disease: The Role of Markets, Regulation and Information*, 72 Geo. L.J. 1231, 1233-34 (1984).

To understand just how difficult it is to determine the scope and severity of safety risks, it is worth reviewing the regulatory preamble accompanying OSHA's regulation of hazardous energy sources (known as OSHA's lockout/tagout standard). *See* 54 Fed. Reg. 36644 (Sept.1, 1989). The purpose of this regulation is to protect workers against the unexpected energization of mechanical equipment like drill presses, saws, mixers, and conveyor belts that are switched off, or de-energized, during maintenance operations. Obviously, the unexpected re-energization of this equipment can, and too often does, lead to serious or fatal injuries. To assess the risk, OSHA amassed all of the available data it could find about how often these injuries occur. *Id.* at 36646-52. OSHA compiled data involving injuries and fatalities reported to the agency, Bureau of Labor Statistics reports, surveys conducted by the National Institute of Occupational Safety and Health, academic studies, and information furnished by labor unions and employers during the rulemaking process. *Id.* at 36605-53. Based on these reports, OSHA drew general conclusions about the frequency of these accidents in particular industrial sectors and the likely associated injury and death rate. It then extrapolated these findings to the

workforce as a whole, sensitive to the fact that the injury rate is far higher in some sectors than in others. *Id.*

Uncertainties are inevitable in analysis of this sort. For one thing, OSHA recognized that relying on reports of injuries and accidents was problematic because of historic, widespread under-reporting of occupational injuries. *Id.* at 36648. For another thing, in some industrial sectors, the number of cases reported was small relative to the size of the workforce, making it difficult to draw any solid conclusions about the prevalence of the risk. *Id.* at 36648-53. And finally, to quantify the overall risk, OSHA had to extrapolate what it had learned from a relatively small data set to very large populations of workers, a process which is hardly precise. Thus, despite the enormous effort OSHA put into this risk determination, and the fact that no one alleged that it had overlooked available data, OSHA's risk determinations were greeted with skepticism by the D.C. Circuit. *Int'l Union, UAW v. OSHA*, 938 F. 2d at 1320-23.

Thus, in the ordinary rulemaking, simply quantifying risk is a task fraught with uncertainties. And in future rulemakings, involving less well understood risks, like damage to natural resources, the complexity, and resulting uncertainty, will be far greater. *See State of Ohio v. Dep't of Interior*, 880 F.2d 432 (D.C. Cir. 1989) (explaining difficulty of valuing damaged natural resources).

2. As hard as it is to assess risk, evaluating benefits may be even more problematic. At least risks can be quantified. That is not always true with benefits. There are moral as well as practical impediments to placing a value on human life or injuries. Life and health are not goods or commodities that can be traded for a sum certain. And economists have done a poor job in assigning a dollar value to an injury avoided; not simply because it is difficult to calculate the avoided medical costs, but also because it is virtually impossible to rationally assign a dollar amount to pain and suffering avoided, to creativity and productivity maintained, or other values we hold dear but for which no market exists. Take a common WMSD: chronic and debilitating back pain. How does one place a price on what someone would pay to be spared that agony? How does one value the injury to a parent whose back pain is so severe that she cannot pick up her infant child, or play catch with her son, or take her daughter on a hike?

Nonetheless, economists have tried to place a value on the benefit of preventing injuries, such as avoiding chronic back pain. But the valuation methods currently used are crude, they capture little more than the economic costs associated with the injury, and, for these reasons, are subject to intense debate. One way to place a value on an avoided injury is to assume there is a wage premium that serves to compensate injured

workers for hazardous work. Economists try to estimate what the premium would be, and to use that premium as a measure of the value of the injury avoided. *See* Viscusi, *Regulating the Regulators*, 63 U. Chi. L. Rev. 1423, 1430-31 (1996). That approach has drawn intense criticism because there is impressive evidence that wage premiums do not exist, Dorman & Hagstron, *Wage Compensation for Dangerous Work Revisited*, 52 Ind. & Lab. Rel. Rev. 116 (1998), or if they do exist, they substantially under-compensate workers, *see* Thomas O. McGarity & Sidney A. Shapiro, *OSHA's Critics and Regulatory Reform*, 31 Wake Forest L. Rev. 587, 606-607 (1996). And Professor Viscusi's theory rests on the assumptions that workers are fully informed of the nature and gravity of the risks, that employers and employees have equal bargaining power, and that workers unhappy with low wages for high risk jobs have perfect mobility - assumptions many scholars believe are unwarranted. McCluskey, *The Illustion of Efficiency in Workers' Compensation "Reform,"* 50 Rutgers L. Rev. 657, 751-77 (1998).

Another problem with relying on wage premiums to determine the monetary benefits of regulation is that the outcome is dependent on an individual's wealth. Since a worker gives up the "wage premium" to work in a safer place, the worker who leaves a risky job is "willing to pay" (in terms of forgone compensation) the amount of the premium to work in

safer conditions. Willingness to pay, as a function of a person's wealth, is limited by the amount a worker can afford to pay to be in safer employment. Thus, when analysts measure regulatory benefits on "wage premiums," they ignore equitable considerations. SHAPIRO & GLICKSMAN, *supra*, at 97-98. This flaw could be avoided if regulatory benefits were measured using how much money individuals would accept to reduce their level of safety. A poor person can demand the same amount of money to sell the right to be safe as a rich person. *Id.* at 56. Analysts attempt to derive such estimates based on polling individuals and asking them about their willingness to sell the right to be safe, but the results are subject to numerous problems, including that the answers are hypothetical and therefore may not be accurate. *Id.* at 104-05. Therefore, although several techniques try to quantify the economic loss that flows from injuries, they are controversial and make no pretense of capturing all of the values conferred by preventative regulation.[7]

For all of these reasons, even in a rare case where an agency can assess risk with reasonable accuracy, no comparable claim can be made

[7] Even if an agency is able to calculate benefits with some degree of precision, there is an enormous debate about how to treat benefits that will accrue in the future; some argue that the benefits should be "discounted" to reflect the present value; others argue that discounting is inherently biased against regulation, because it pits compliance costs that are generally incurred immediately against highly-discounted long term benefits. *Compare* Heinzerling, *Environmental Law and the Present Future*, 87 Geo. L. J. 2025 (1999) (criticizing discounting as inherently anti-regulatory) *with* Moore &

with regard to quantifying benefits. Unless one is prepared to take the position that it is morally and legally defensible to assume away all of the non-quantifiable benefits of avoiding death or debilitating injury, then a substantial portion of the benefits that flow from protective regulation will remain non-quantifiable, but must still be given serious weight. This is not simply our view; this is the Legislature's view, since it instructed the Department to consider "qualitative" benefits as well as quantifiable ones.

3. The third step in cost benefit analysis is an assessment of the compliance costs that will likely be incurred. To be sure, estimating costs seems straightforward. Many policy makers believe that all an agency must do to develop cost assessments is to obtain from affected industries estimates of the incremental cost of complying with a proposed regulation and extrapolate those costs to all businesses affected by the rule. That assumption is wrong for a number of reasons, although we note that because reliable compliance data is generally unavailable and because guidance on how to properly assess likely compliance costs is limited, agencies generally have no choice but to rely on compliance cost estimates provided by regulated industry. McGarity & Ruttenberg, *Counting the Cost of Health, Safety, and Environmental Regulation*, 80 Tex. L. Rev. 1997, 2034 (2002).

Viscusi, *Discounting Environmental Health Risks: New Evidence and Policy*

That approach leads to a significantly inflated assessment of likely compliance costs. In 1995, the Office of Technology Assessment (OTA), a Congressional research agency, compared the predicted costs of OSHA health and safety regulation with actual costs, and concluded that generally the actual cost burden proved to be considerably less than what OSHA had estimated. OTA, *Gauging Control Technology and Regulatory Impacts in Occupational Safety and Health, An Appraisal of OSHAs Analytical Approach* at 10 (1995); *see also* Goodstein and Hodges, *Polluted Data*, THE AMERICAN PROSPECT 64 (Nov./Dec. 1997) (making same point for EPA cost data). There are a number of reasons for this, apart from the obvious reason that businesses have powerful incentives to overstate expected regulatory costs as a way of defeating, or at least watering down, regulatory initiatives. McGarity & Ruttenberg, *supra*, 80 Tex. L. Rev. at 2033-34.

First, businesses often do not know, and do not generally keep records reflecting, which compliance costs are associated with a given regulatory requirement. The General Accounting Office conducted a retrospective study on the costs imposed by federal regulation. GAO's conclusions are striking. Few businesses were willing to participate in the study; those that did could not provide comprehensive data on the direct

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Implications, 18 J. Envtl. Econ. & Mgmt., at S-51 (1990) (defending discounting).

costs of regulation and could not isolate the incremental costs of complying with new regulatory requirements. In other words, GAO found that even highly regulated companies generally have no method of measuring the cost of federal regulation, and federal agencies have no means of verifying the cost estimates businesses provide. GAO, *Regulatory Burden: Measurement Challenges and Concerns Raised by Selected Companies* 55 (Nov. 1996).

Next, cost estimates typically do not take into account technological innovation that follows the adoption of health and safety regulation and often drives down compliance costs. McGarity & Ruttenberg, 80 Tex. L. Rev. at 2048-49. OTA, for instance, observed that in "a good number of the cases that OTA examined, the actual compliance response that was observed included advanced or innovative control measures that had not been emphasized in the rulemaking analysis," resulting in an actual "cost burden . . . considerably less than what OSHA had estimated." OTA at 10. Nor do businesses fairly allocate the costs associated with modernization when assessing compliance costs; once again, often regulatory initiatives lead to technological change that, in turn, leads to higher productivity. Those expenses cannot all fairly be attributed to compliance. *See, e.g.*, Viscusi, *Cotton Dust Regulation: An OSHA Success Story?*, 4 J. Pol'y Analysis & Mgmt. 325 (1985) (pointing

out that compliance costs with OSHAs cotton dust standard were lower than anticipated and that much of the amount attributed to compliance was actually spent on increasing productivity).

The point of this discussion is not to suggest that cost benefit analysis has no place in rulemaking. Indeed, for at least the past twenty years, cost benefit has been a fixture in developing federal regulatory policy. Our submission is narrow. Assessments of costs and benefits will no doubt continue to play a pivotal role in developing regulatory solutions to health and safety problems. It is imperative, therefore, that policy makers and judges understand both its virtues and vices. Its virtues are clear: cost benefit analysis requires a sober reflection on the economic considerations that inevitably are at play, and helps guard against regulatory "solutions" that cost more than they are worth. But there are vices as well. The impulse to quantify all factors - even those that defy quantification - can create an illusion that hard regulatory choices can be reduced to a simple mathematical equation. That is not so, as this and every other health and safety case makes that plain.

The Legislature instructed the Department to determine that the probable benefits of the rule are greater than its probable costs, not on the basis of a mathematical formula, but after careful consideration of both qualitative and quantifiable costs and benefits. The Department made its

determination that the Ergonomics Rule satisfied the required cost benefit determination on the basis of data that is as reliable and comprehensive as is ever likely to be available to a standard-setting agency. And based on that data the Department concluded that the benefits of the rule outstripped the costs by a factor of 4 to 1. If the Department's efforts are found insufficient here - where the Department had robust data, engaged in careful deliberations, and found that the benefits vastly overshadowed the costs - we have grave concerns that cost benefit requirements will become an obstacle to rulemaking, not an analytic tool to gauge whether the benefits of preventive measures are worthwhile. We urge the Court to uphold the Department's determination here.

IV. CONCLUSION

For the reasons stated above and in the Department's brief, the Ergonomics Rule should be upheld in all respects.

RESPECTFULLY SUBMITTED this _____ day of April, 2003.

Craig H. Allen, WSBA# 23985
William R. Andersen
University of Washington
School of Law
Condon Hall
1100 N.E. Campus Parkway
Seattle, Washington 98105
(206) 616-8302
(206) 543-9385

David C. Vladeck
Georgetown University Law Center
600 New Jersey Avenue, NW
Washington, D.C. 20001
(202) 662-9540

Counsel for Amici

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